

CLAIMS

In accordance with 37 C.F.R. §1.121, a claim listing including the status and text of all claims as currently presented appears below.

Please cancel claims 1-21.

24. (Withdrawn) An article having an outer surface and at least three layers of coating, comprising: a first layer created from the application of a first composition of a first oligomer of an energy-curable oligomer, the first composition being dried upon the outer surface of the article to produce the first layer, and the first layer having an outer surface; a second layer created from the application of a second composition of a second oligomer of an energy-curable oligomer, the second composition being dried upon the outer surface of the first layer to produce the second layer, and the second layer having an outer surface; and a third layer created from the application of a third composition of a third oligomer of an energy-curable oligomer, the third composition applied to the outer surface of the second layer to produce a third layer, and the applied third layer being cured such that the first oligomer, the second oligomer, and the third oligomer are cured.

25. (New) A method for applying an image onto a game card, the method comprising the steps of:

(a) applying a first composition comprising a first oligomer comprising an energy-curable oligomer to the outer surface of the game card to produce a first layer, wherein after the application step (a), a first layer comprising the first oligomer is on the outer surface of the game card, and wherein the first layer has an outer surface;

(b) drying the game card produced after step (a);

(c) at least partially curing the first composition;

(d) applying a second composition comprising a second oligomer comprising an energy-curable oligomer to the outer surface of the first layer to produce a second layer, wherein after the application step (d), the second layer is on the outer surface of the first layer, and wherein the second layer has an outer surface;

(e) drying the game card produced after step (d);

(f) at least partially curing the second composition;

(g) applying a third composition comprising a third oligomer comprising an energy-curable oligomer to the outer surface of the second layer to produce a third layer, wherein after the application step (g), the third layer is on the outer surface of the second layer; and

(h) curing the first oligomer, the second oligomer, and the third oligomer.

26. (New) The method of claim 25, wherein the composition in steps (a), (d) and (g) is applied by flexography, roto gravure, screen printing, offset, letter press or roll coater.

27. (New) The method of claim 25, wherein the first oligomer and second oligomer are water based.
28. (New) The method of claim 25, wherein the first oligomer, the second oligomer and the third oligomer comprises an epoxy acrylate, a urethane acrylate, a polyester acrylate, an acrylated acrylic, a cycloaliphatic diepoxide or a combination thereof.
29. (New) The method of claim 25, wherein the first oligomer, the second oligomer and the third oligomer comprises (1) a polyester or urethane having an acrylate group or (2) a cycloaliphatic diepoxide.
30. (New) The method of claim 25, wherein the first oligomer and second oligomer is from 10% to 40% by weight of the first composition and second composition.
31. (New) The method of claim 25, wherein the third oligomer is from 15% to 50% by weight of the third composition.
32. (New) The method of claim 25, wherein the third oligomer is not water-based.
33. (New) The method of claim 25, wherein the first composition comprises water, a surfactant, a thickener, a pigment or dye, and a first oligomer comprising a water-based, energy-curable oligomer.

34. (New) The method of claim 25, wherein the second composition comprises water, a surfactant, a thickener, an absorbent, a pigment or dye, and a second oligomer comprising a water-based, energy-curable oligomer.

35. (New) The method of claim 25, wherein the third composition comprises a surfactant, a slip additive, a release additive, a wax and a third oligomer comprising an energy-curable oligomer.

36. (New) The method of claim 25, wherein the drying steps (b) and (e) are performed by a dryer at a temperature of from 230°F to 390°F in the presence of a large flow of air volume.

37. (New) The method of claim 25, wherein the curing step (f) is performed by exposing the game card produced after step (g) to an electron beam or UV lamp.

38. (New) The method of claim 25, further comprising the step of applying an ink to the outer surface of the first layer, or the outer surface of the second layer, or to both, so as to form an image.

39. (New) The method of claim 38, wherein the ink is water-based.

40. (New) A method for applying a coating composition to a lottery ticket having an outer surface, comprising

(a) applying a first composition comprising a first oligomer comprising an energy-curable, water-based oligomer to the outer surface of the ticket to produce a first layer, wherein after the application step (a), a first layer comprising the first oligomer is on the outer surface of the ticket, and wherein the first layer has an outer surface;

(b) drying the ticket produced after step (a) at a temperature of from 230 °F to 390 °F in the presence of a large flow of air volume while also partially curing the first oligomer;

(c) applying a second composition comprising a second oligomer comprising an energy-curable, water-based oligomer to the outer surface of the first layer to produce a second layer, wherein after the application step (c), the second layer is on the outer surface of the first layer, and wherein the second layer has an outer surface;

(d) drying the ticket produced after step (c) at a temperature of from 230°F to 390 °F in the presence of a large flow of air volume while also partially curing the second oligomer;

(e) applying an image ink to the outer surface of the second layer to produce an image;

(f) drying the ticket produced after step (e);

(g) applying a third composition comprising a third oligomer comprising energy-curable oligomer over the image and the outer surface of the second layer to produce a third layer; and

(h) curing the first oligomer, the second oligomer, and the third oligomer with an electron beam, wherein the first oligomer, the second oligomer and/or the third oligomer comprises a polyester acrylate, urethane acrylate, an epoxy acrylate or a combination thereof.